MELPAR-A-GRAPH

MELPAR, INC. • A SUBSIDIARY OF WESTINGHOUSE AIR BRAKE CO.

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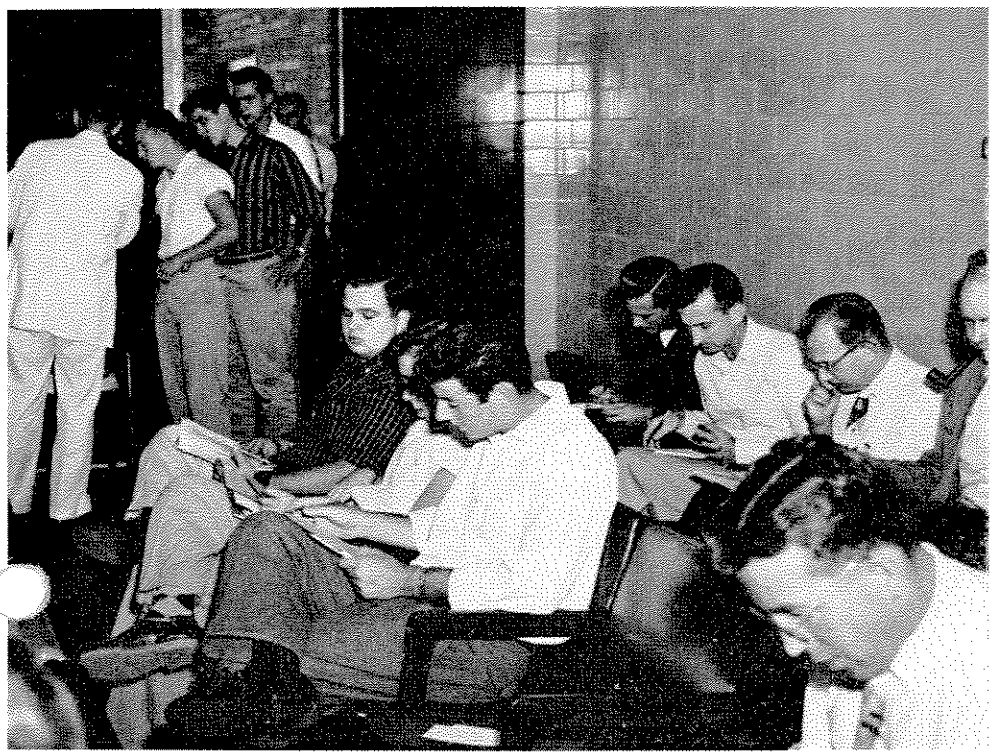
MELPAR BEACON GOES IN SATELLITE



SIGN AND COSINE . . . *Melpar people registering at Falls Church for in-plant engineering courses given by The George Washington University and the University of Virginia, and simultaneously preparing their Tuition Refund Plan applications.*

PROJECT VANGUARD USING AN/DPN-48 FOR CONTROL

In one lightning instant in time, after a vertical ascent of about 300 miles above thte earth at a maximum speed of 5 miles per second, a 20-inch metal sphere will be thrown free of its propelling rocket and set on course to accomplish man's first invasion of unbounded space.

The AN/DPN-48 radar beacon developed by Melpar for the U. S. Army Signal Corps will play an important part in that climactic event. Under a contract awarded it recently by The Army Signal Supply Agency, the Company will supply a quantity of its beacons to Project Vanguard, whose venture beyond the earth will occur during the 1957-1958 International Geophysical Year.

Under the supervision of Section Head R. E. Williams and Project Engineer Dana Gumb, the device is being constructed as a 16 inch long cylinder, six inches in diameter and weighing approximately 20 pounds. Some 27 miniature tubes are used in its intricate system of command and guidance circuits.

Installed in the various test program stages of the 72 foot, 11-ton rocket being built by Glenn L. Martin Company for the Naval Research Laboratory, Melpar's AN/DPN-48 will furnish tracking information from the huge vehicle during its flight. The command function of the beacon may actuate the ignition of the third stage and assist in sending the satellite into its orbital path.

Thus sent forth, the man-made 'moon' is expected to circle the earth once every 90 minutes while its instrumentation transmits to ground stations true data concerning the physical aspects of a region into which only human imagination has yet penetrated.

D.C. INCOME TAX TO BE WITHHELD UNDER TERMS OF NEW LAW

Bound by the provisions of an Act of Congress passed during the last Congressional session, the Company is now required to withhold personal income tax payments for all its employees residing in the District of Columbia.

The Act is effective on October 1, 1956; the first payments will be deducted from paychecks to be distributed on October 12. As in the case of Federal Income Tax, the amount withheld is based upon the tax rate as adjusted by the number of exemptions.

Employees subject to this District of Columbia tax will be supplied with a Withholding Tax form by the Personnel Department at Falls Church. The exemp-

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131 REGISTER FOR IN-PLANT STUDIES

A total of 131 Melpar people were registered for in-plant college courses during the registration period on September 12. The number enrolling exceeds by a wide margin, the total enrollment of the previous three semesters combined.

The Company's Tuition Refund Plan, which took effect on September 1, combined with the reduced rate offered Melpar employees by the participating universities, is credited with providing the impetus for the increased participation.

A course in Transient Analysis, to be given by The George Washington University at Falls Church, attracted 34 students. This course will yield academic credit for a Master's degree to those indicating their intention to pursue that goal.

In other courses formed at Falls Church, 18 people will study Analytical Geometry, 19 people have signed up for Calculus, and 48 for College Algebra. Enrollment for that course was so large as to require two sections.

The College Algebra course also will be taught at Arlington Division, where 12 Melpar people have enrolled.

OPINION

The question is often asked: "why doesn't Melpar sponsor social activities for the benefit of its employees?"

What benefit?

Company-sponsored socializing has its superficial attractions. But after the ball is over, the things which linger on are distraction, petty bickering, jealousy, and favoritism (both real and imagined).

Melpar promotes people who demonstrate larger capabilities: increased skills, or the quality of leadership. We don't promote first basemen or baritones.

Many Melpar people enjoy picnics—in places and at times of their own choosing. They don't want to be told "you're going on a picnic next Saturday at Bumpkin's Grove. Nine o'clock sharp now; we're got you down for the three-legged race".

There also are many people in Melpar who are ready and willing to leave picnics to the ants. This column will sponsor three cheers and a tiger for both factions.

Next, let's consider that sacred cow, the office party. It is scheduled for 4 p.m., the day before Christmas. You go. You should be searching for a last minute gift for Aunt Emma; the butcher is holding the turkey for ransom; and the tree-stand takes a mechanical genius (you) to assemble.

But you have to go to the office party. Why? Because—that's why. What are you, a snob?

Three hours later, you're still searching for a topic of conversation and someone to share it. You're fed to the eyeballs with shop talk. Eleven people have told you how to do your job, eleven different ways. You've been introduced to the same person three times, and you only had to know him in order to hate him.

Comes Spring, and the department's DiMaggio erupts. All winter, he's been bowling on your team. (How're you going to get rid of him? Murder's illegal.) He averaged 102 and had a reason for every gutter ball.

Now he wants you on the softball team. He's the manager of course; also coach and pitcher. The Department's **got** to be represented! The boss aims to beat Jones' crew because Jones finagled the transfer of one of his best men. So you are going to play softball, three times a week. You can go fishing on your own time.

Tennis, anyone?

TEMPORARY PARKING . . . *This parking problem has a built-in solution. Arlington Division merely has to grind out completed MSQ-1A systems, and this stockpile of trucks will melt away—leaving room for more trucks, vans, trailers, or what have you.*

9 OUT OF 10 MELPAR PEOPLE JOIN NEW GROUP INSURANCE PLAN

Slightly more than 90 per cent of Melpar employees are now protected by the Company's cost-sharing Group Insurance Plan. Personnel records indicate that a goodly number of new employees had not quite attained the 30-day service minimum for eligibility on September 1, when the new Plan went into action; it is expected that our rate of participation will rise still higher as these people become eligible.

With "new hires" continuing to join the Company daily, this reminder may be helpful—30 days after your hiring date, if you are a permanent, full-time employee, you are eligible to join the Group Insurance Plan. And you can't buy more peace of mind for less money!

WILLIAMS-GERIG PAPER GIVEN BEFORE DAYTON IRE CHAPTER

The September meeting of the Dayton, Ohio, chapter of the IRE Professional Group on Telemetry and Remote Control was featured by the presentation of a paper co-authored by Falls Church Section Head R. E. Williams and J. S. Ge

Entitled "A Multiplexed Analog Telemetering System With .05% Inaccuracy", the paper described circuit concepts and design techniques used in developing a 14 channel single-speed analog telemetry system.

An analysis of the performance of the Melpar-designed and developed Flight Control Group AN/DRA-2 was presented as a practical application of the design concept.

DC TAX TO BE WITHHELD

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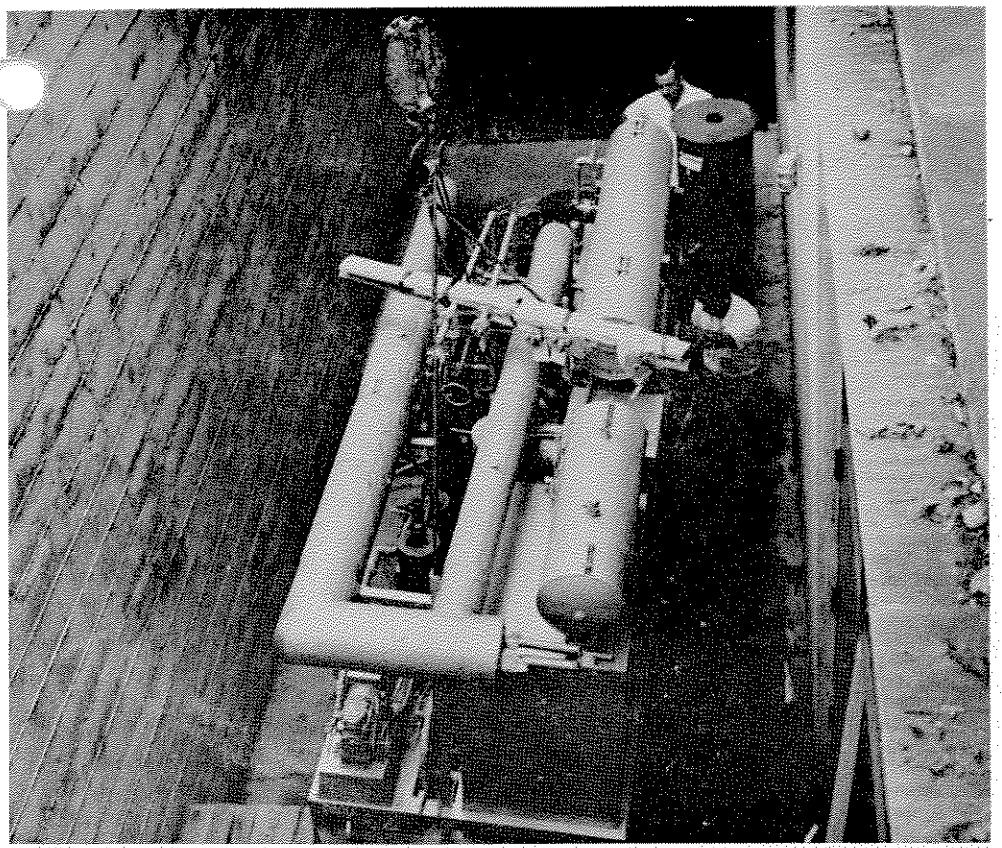
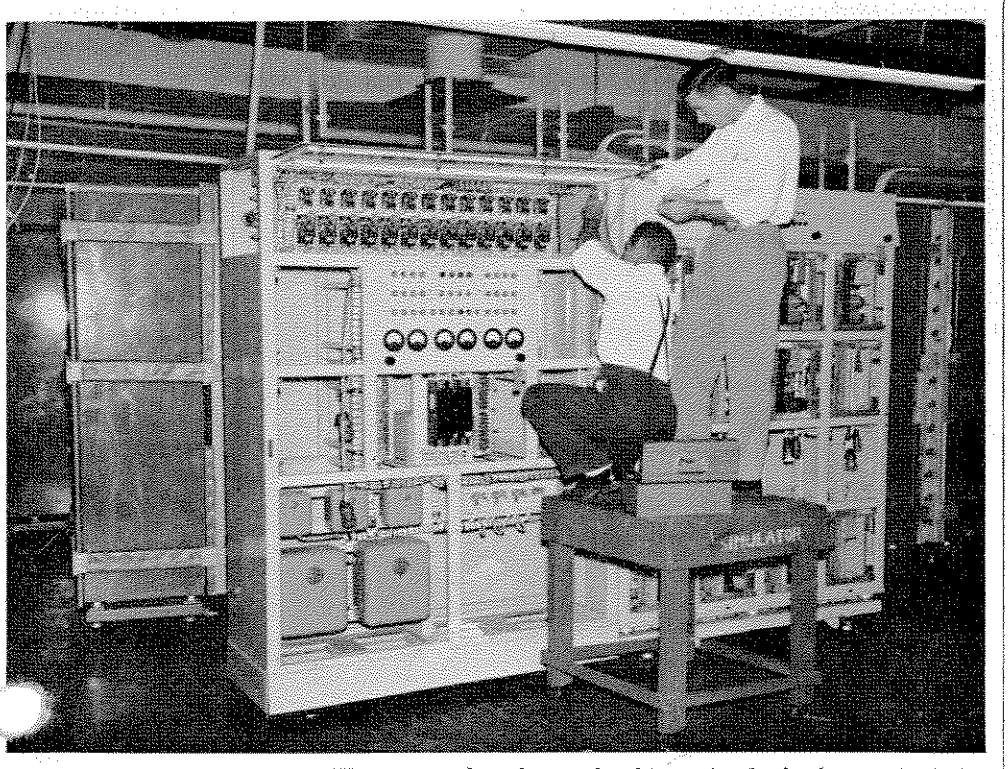
tions entered on the form are the only possible basis for calculation of taxable amounts and payments by our Accounting Department.

Employees listed on Company records as residents of the District of Columbia who do not submit a Withholding Form or Non-Resident Certificate will necessarily be regarded as claiming no exemptions, and the tax amounts withheld will be established on that basis.

It is probable that some Melpar people, formerly residents of the District Columbia, have moved from that area without notifying the Personnel Department of their change of address. They should call or visit Personnel at Falls Church to review their status at once.



DOWN THE HATCH . . . *Refrigeration equipment is lowered into place outside the Environmental Test Lab at Falls Church. This massive rig and more is required to feed two pounds of air per minute into our altitude chamber. It simulates the process of drawing rarefied air through a turbo-compressor and using it to cool airborne electronic gear in aircraft flying at very high altitudes.*



NO ROOM TO SPARE . . . *The wrapped and crated cabinets in the background of this picture are 'building blocks' of the F101A Flight Simulator awaiting shipment. Into the working space thus vacated, Project Manager J. L. Clark's people promptly hustled consoles for the RF101A Simulator. At left is Lloyd Russell, and at right is Irwin Corbin, doing something complicated with the unit's power supply.*

SPECIAL TEST GEAR BUILT FOR MSQ-1A RUNS TIME RAGGED

One of the most unpopular denizens of Arlington Division is Time. Undermining his influence is an activity engaging the effort and ingenuity of people throughout the organization.

A prime example of the work of these anti-time campaigners is a commonplace box of tubes, wires, lamps, and the like installed in the MSQ-1A test area. Because of it, test-days on MSQ-1A racks have become hours, and test-hours on many other assemblies now are minutes.

In operation, the box is a virtually automatic means of exposing shorts and grounds in the intricate wiring harnesses of the radar system. A typical console containing 600 input connections calls for 180,000 test operations to verify continuity between all conductors. Manually, such an effort is impractical. Arlington's test unit, probing the innards of the gear, "seeks" one circuit after another. The flashing of a numbered neon lamp identifies the circuit located; if the lamp number corresponds to the known circuit number, all is well. If not, the mistake is plainly evident.

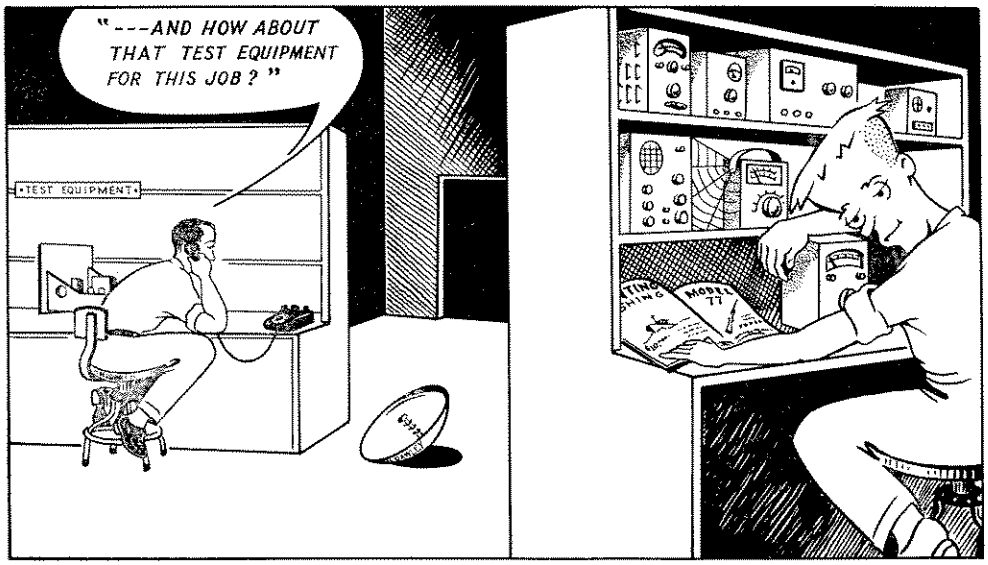
Circuitry of the tester is very adaptable. Changing the adapter plug-in cables and writing a new circuit list are the only revisions necessary to prepare the unit for a new test routine.

Engineer E. L. Clevenger designed the apparatus, which then was assembled and wired by Technicians T. L. Randall and B. L. Gates. Though originally custom-built for work on the MSQ-1A harnesses, the unit is demonstrating unexpected versatility to those working with it. Before the last MSQ-1A is shipped, the group expects their brain-child to push old man Time around in more ways than a few.

LIGHTING INSTALLATION UNDER WAY FOR FALLS CHURCH PARKING AREA

The task of installing floodlights along the borders of the center parking lot at Falls Church is being pressed forward. Before Daylight Savings Time ends and the dark of winter falls, Building Maintenance Supervisor J. M. Barnes' men will have installed eight stanchions, each carrying two 1000-watt incandescent lamps, around the lot. The installation will be automatically controlled by a pre-set timing switch.

Mr. Murgatroyd Misfit.



If Murgatroyd would cease to dream,
Others could get on the beam.

GOING UP!

Several promotions at the supervisory level were announced in the Quality Control Department during September. E. J. Caskey was promoted to Incoming Inspection Supervisor at Falls Church. C. L. Stansberry was appointed Incoming Inspection Supervisor at Arlington Division.

G. P. Kefalas, former Senior Engineer, has risen to Project Engineer at Falls Church. Two new Senior Engineers at Falls Church are F. N. Jaynes and S. C. Feild; both men advanced from Engineer grade. Also at Falls Church, former Technicians S. R. Perrino and W. H. Kessler were promoted to Junior Engineer.

In Arlington Division, G. H. Gibbs rose from Junior Engineer to Engineer. Former Machinist R. T. Stringfellow was named Fabrication Estimator in Arlington Division. R. J. Tracy moved up from Junior Production Planner to Planning Assistant, while C. F. Payton rose from Production Aid to Junior Production Planner. In the Light Assembly Department, V. E. Hicks advanced to First Class Light Assembler Task Leader, and A. K. Warwick was promoted from Light Assembler to Light Assembler Task Leader.

Technician Lead Man T. W. String, of Falls Church, now is a Senior Technician Lead Man. Irwin Corbin advanced from Mechanical Technician to Mechanical Technician 1st Class. In Quality Control at Falls Church, A. W. Lee was promoted from Electro Mechanical Inspector to Task Leader in that group.

At Melpar-Watertown, J. N. Makris was promoted from Driver to Maintenance Man.

G. T. Klop has been appointed Planning and Scheduling Supervisor at Falls Church; previously, he served as Assistant Section Planning Supervisor. J. M. Shaunessy, former Senior Planner, was promoted to Section Planning Supervisor.

Also at Falls Church, three former Procurement Planners were promoted to Senior Planner: R. R. Morris, T. T. Gilley, and R. L. Chapman. Advanced from Material Control Clerk to Junior Procurement Planner was J. B. Lynch. Also named Junior Procurement Planner was R. L. Howard, former Expediter.

In the Open Market Purchasing Department at Falls Church, L. G. Hitt was promoted from Senior Clerk to Chief Clerk.

LEVINE CHAIRMAN OF IRE SESSION

"A Survey of American vs European Production Techniques" was the theme of a lecture and group discussion held on September 27 by the Professional Group On Production Techniques of the Washington Section, IRE.

Sidney Levine, Senior Engineer at Falls Church, served as Chairman of the meeting. Chief speaker for the program was H. E. Ruehlmann, Director of Research for the Elco Corporation of Philadelphia.

'What's Our Policy'

In all probability, this column of the **MELPAR-A-GRAPH** will be rendered obsolete in the near future. Now in its last stages of preparation, a new Employee's Handbook is to be distributed by the Personnel Department.

The Company's present 'policy booklet' has itself been largely out-dated by the extensive revisions of personnel policy announced September 1. The new handbook will spell out, in all necessary detail, those policies.

So it does seem that this column, which sought to answer policy questions or to clarify some of the finer points, will have outlived its usefulness. However—in the remote event that the new handbook should miss a subtle point here and there, the column will be reborn.

HOMEBOUND TRAFFIC AT FALLS CHURCH SPEEDED BY FAIRFAX POLICE CONTROL

Assignment of Fairfax County police to traffic duty at Melpar's Falls Church laboratory has greatly eased the flow of outbound traffic at day's end. Approximately 700 automobiles funnel out of Falls Church onto heavily travelled Route 50 between 5:30 p.m. and 6:00 p.m. nightly.

The control of east and westbound traffic on Route 50 during that time has made it possible to clear the Melpar parking lots well before 6:00 p.m. Along with the decrease in travel time for Falls Church employees, has come the virtual elimination of the risk of accident while entering the highway.

MINI-MECH ASSEMBLY METHOD SHOWN IN LAWSON ARTICLE

Mini-Mech, the automatic assembly system developed by Melpar for the Bureau of Ships, U. S. Navy, is the subject of an article published by Project Engineer A. A. Lawson in the October issue of Automation, The Magazine Of Automatic Operations.

In addition to a detailed description of the system's operation, including punch card programming, board positioning and component feeding, and soldering, Mr. Lawson's article emphasizes the importance of a realistic approach to the economics of automatic systems.